

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



APPLICANT:

Burrows

SERIAL NO.:

09/309,361

**CONFIRMATION No: 7398** 

FILING DATE:

May 11, 1999

TITLE:

Method for Pressurized Annealing of Lithium Niobate and Resulting

Lithium Niobate Structures

PATENT NO.:

6,770,132 Bl

Certificate

ISSUED:

Aug 3, 2004

JUN 2 0 2005

**EXAMINER:** 

Lan Vinh

of Correction

**ART UNIT:** 

1765

#### **CERTIFICATE OF MAILING**

I hereby certify that this paper is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450, on the date printed below:

Date: June 14, 2005

Name:

Penelope Sherman

Commissioner for Patents,

P.O. Box 1450 Alexandria, VA 22313-1450

### TRANSMITTAL FOR CERTIFICATE OF CORRECTION

We enclose, pursuant to the provisions of 37 C.F.R. §1.322, a Certificate of Correction for United States Patent No. 6,770,132. Please make the Certificate of Correction and the statements herein of record.

The corrections made to the above-identified United States Patent in the Certificate of Correction filed herewith are to correct mistakes which are of a minor character according to 35 U.S.C. §254 and 37 C.F.R. §1.322. The proposed corrections do not

Docket No. CALT-2806 (032634-000011)

constitute such changes in the patent as would constitute new matter or would require

re-examination.

37 C.F.R. §1.322 Corrections

Please see attached Certificate of Correction.

No Fee Due

It is believed that no fee is required for filing the above-noted document. In the

event any fee is required for filing of this Certificate of Correction, the Assistant

Commissioner is hereby authorized to charge the fee to our Deposit Account No. 50-

1698.

Respectfully submitted,

THELEN REID & PRIEST LLP

Dated: June <u>1</u>, 2005

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,770,132 B

DATED : Aug 3, 2004
INVENTOR(S) : Burrows

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

1) In section 56 of the cover page by US patent 4,196,963 remove the "\*"

2) In section 57 of the cover page, after ramp down rate., insert --In another aspect of the invention a lithium niobate structure such as an optical waveguide or an optical modulator comprises an optically transparent portion that is substantially void of free protons.--

MAILING ADDRESS OF SENDER:

Thelen Reid & Priest PO Box 640640 San Jose, CA 95164-0640

PATENT NO. 6,770,132 B

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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Patent and Trademark Office					CALT-2806		09/309,361			
					Applicant: Burrows					
Information Disclosure Statement by Applicant						Filed: 5/11/99 Group: 1/1/				
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				U.S. Patent Docume	ents					
Init.		Document No.	Date	Name		Class	Subclass	Filing	Da	
11/1/	Α	4,196,963	4/8/80	Chen et al.		350	96.12	5/30/7		
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Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.



#### **ABSTRACT**

In one aspect of the invention, a method for pressurized annealing of lithium niobate or lithium tantalate structures, such as optical modulators and optical wave guides, comprises pressurizing an oxygen atmosphere containing a lithium niobate or lithium tantalate structure above normal atmospheric pressure, heating the structure to a temperature ranging from about 150 degrees Celsius to about 1000 degrees Celsius, maintaining pressure and temperature to effect ion exchange or to relieve stress, and cooling the structure to an ambient temperature at an appropriate ramp down rate.

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In another aspect of the invention a lithium niobate structure such as an optical waveguide or an optical modulator comprises an optically transparent portion that is substantially void of free protons.